ABSTRACT

The object of this project is to design and implement Airport Management with user interface using PHP. The system is based on airport management. Airport management system primarily deals with management of airport, airlines, passengers, flights, employee, tickets. The system provides broad overview of underlying operational factors that influence the airport management. It includes details on such as passenger with fields such as name, address, phone number and passport details which will be stored in database for verification. Reservation details help in reserving seats for the passenger with other details such as date, flight no, code and other details. Flight details have to be maintained including flight no, code, source and destination etc which is to be considered during reservation. Airport Management System is developed using PHP and MYSQL Server.

1. INTRODUCTION

An **airport management system** is a specialized digital platform that automates and streamlines the main airport operations including passenger, flight, ticket processing, managing airlines, employees, arrival/departure operations, departure control systems and information distribution.

The key modules of airport management systems are

- the airport operational database that stores all the flight and operational information,
- the landside operations module that manages all terminal operations (staffing, maintenance) and airline departure control (passenger check-in, arrival/departure of flights and flight type),
- air traffic management that also checks arrival/departure and delay of flights,
- invoicing and reporting the information of travel, booking and cancellation of ticket,
- airport information system that manages all the internal and external information.

2. PROBLEM DEFINITION

- The database system has the data of all commercial service airports. An **airport** is located in a city. An airport may have many **airline** services. Every airline is identified uniquely by an airline code. Airline code is a two-letter airline designator. Airline also has three-digit code which is printed on an air ticket.

- Airline companies serve **flights**. Every flight is uniquely identified by a flight code. Flight code is a combination of an airline code and four-digit number. Flight takes off from one airport and lands on another airport. Therefore, most important aspect of a flight is, its source and destination. Flight has an arrival time, departure time, duration. Flight has three types of classes business, economy and first class. Flight can be of two types such non-stop flight and a connecting flight. Connecting flight is a flight which takes intermediate stop and changes a flight possibly change of an airline. But we are assuming that connecting flight does not change a flight that is at each stop, after layover time gets over, passengers aboard the same flight.

- Flight carries **passengers** from source to destination. A passenger is uniquely identified by a passenger id and a passport number. Every passenger has details such as name, address, age, sex, phone.

- For a passenger to travel by a flight, he needs a **ticket**. A ticket or air ticket is used to confirm that an individual has reserved a seat on a flight. With the ticket, a passenger is allowed to board the flight. An air ticket has information such as the passenger's name, the issuing airline, ticket number, source, destination, journey date, seat no, class, fare.

- Hence, depending on airline, source, destination, journey date and most importantly class, which a passenger chooses fare or price of an air ticket is determined. A passenger can book one or multiple tickets. The day on which he books an air ticket is a booking date. Similarly, a passenger can cancel one or multiple tickets. The day on which he cancels an air ticket is cancellation date.

- Every airport has **employees** working for it. Every employee is identified by SSN. Every employee has an information such name, address, phone, age, sex, salary. Employees in the role of administrative support, engineer, traffic controller and airport authority work at the airport

3. ER MODEL